

**Amendments to the Claims**

Please amend Claims 1-2, 5-7, 10-12, and 15-16. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing**

1. (Currently Amended) A method of controlling a cryopump, the method comprising:
  - setting an identifier when a temperature is below an operational set point;
  - and
  - if an identifier has been set, responding to a temperature that is above a warmup set point by directing ~~a purge valve to open~~ an exhaust purge valve coupled to an exhaust line of the cryopump to open.
2. (Currently Amended) A method of controlling a cryopump as in Claim 1 wherein responding to a temperature that is above a warmup set point further includes directing a purge valve to open includes at least one of:
  - causing a cryo-purge valve coupled to the cryopump to open; ~~and~~
  - ~~causing an exhaust purge valve coupled to an exhaust line of the cryopump to open.~~
3. (Original) A method of controlling a cryopump as in Claim 1 wherein the operational set point is 18K.
4. (Original) A method of controlling a cryopump as in Claim 1 wherein the warmup set point is above 34K.
5. (Currently Amended) A method of controlling a cryopump as in Claim 1 wherein ~~causing a purge valve to~~ responding to a temperature that is above a warmup set

point comprises delivering purge gas into the cryopump without initiating an entire regeneration process.

6. (Currently Amended) A cryopump controller which is ~~programed~~ programmed with instructions for:
  - setting an identifier when a temperature is below an operational set point;
  - and
  - if an identifier has been set, responding to a temperature that is above a warmup set point by directing ~~a purge valve to open~~ an exhaust purge valve coupled to an exhaust line of the cryopump to open.
7. (Currently Amended) A cryopump controller as in Claim 6 wherein the instructions for responding to a temperature that is above a warmup set point ~~further include instructions for directing a purge valve to open~~ include instructions for at least one of:
  - causing a cryo-purge valve coupled to the cryopump to open; ~~and~~
  - ~~causing an exhaust purge valve coupled to an exhaust line of the cryopump to open.~~
8. (Original) A cryopump controller as in Claim 6 wherein the operational set point is 18K.
9. (Original) A cryopump controller as in Claim 6 wherein the warmup set point is above 34K.
10. (Currently Amended) A cryopump controller as in Claim 6 wherein ~~directing a purge valve to open~~ responding to a temperature that is above a warmup set point comprises delivering purge gas into the cryopump without initiating an entire regeneration process.

11. (Currently Amended) A cryopump comprising:
  - a controller in communication with the cryopump, the controller including instructions for:
    - setting an identifier when a temperature is below an operational set point; and
    - if an identifier has been set, responding to a temperature that is above a warmup set point by directing ~~a purge valve to open~~ an exhaust purge valve coupled to an exhaust line of the cryopump to open.
12. (Currently Amended) A cryopump as in Claim 11 wherein the instructions for responding to a temperature that is above a warmup set point further include instructions for directing a purge valve to open ~~include instructions for at least one of:~~
  - causing a cryo-purge valve coupled to the cryopump to open; and
  - causing an exhaust purge valve coupled to an exhaust line of the cryopump to open.
13. (Original) A cryopump as in Claim 11 wherein the operational set point is 18K.
14. (Original) A cryopump as in Claim 11 wherein the warmup set point is above 34K.
15. (Currently Amended) A cryopump as in Claim 11 wherein ~~directing a purge valve to open~~ responding to a temperature that is above a warmup set point comprises delivering purge gas into the cryopump without entering into an entire regeneration process.
16. (Currently Amended) A system for controlling a cryopump, the system comprising:

a means for setting an identifier when a temperature is below an operational set point; and

a means for responding to a temperature that is above a warmup set point by directing ~~a purge valve to open~~ an exhaust purge valve coupled to an exhaust line of the cryopump to open when an identifier has been set.